

North Tulare County Regional Working Group Agenda

Cutler-Orosi School District Conference Office

12623 Avenue 416 Orosi, CA 93647

Saturday, November 14, 2015

9:00 - 4:00 PM

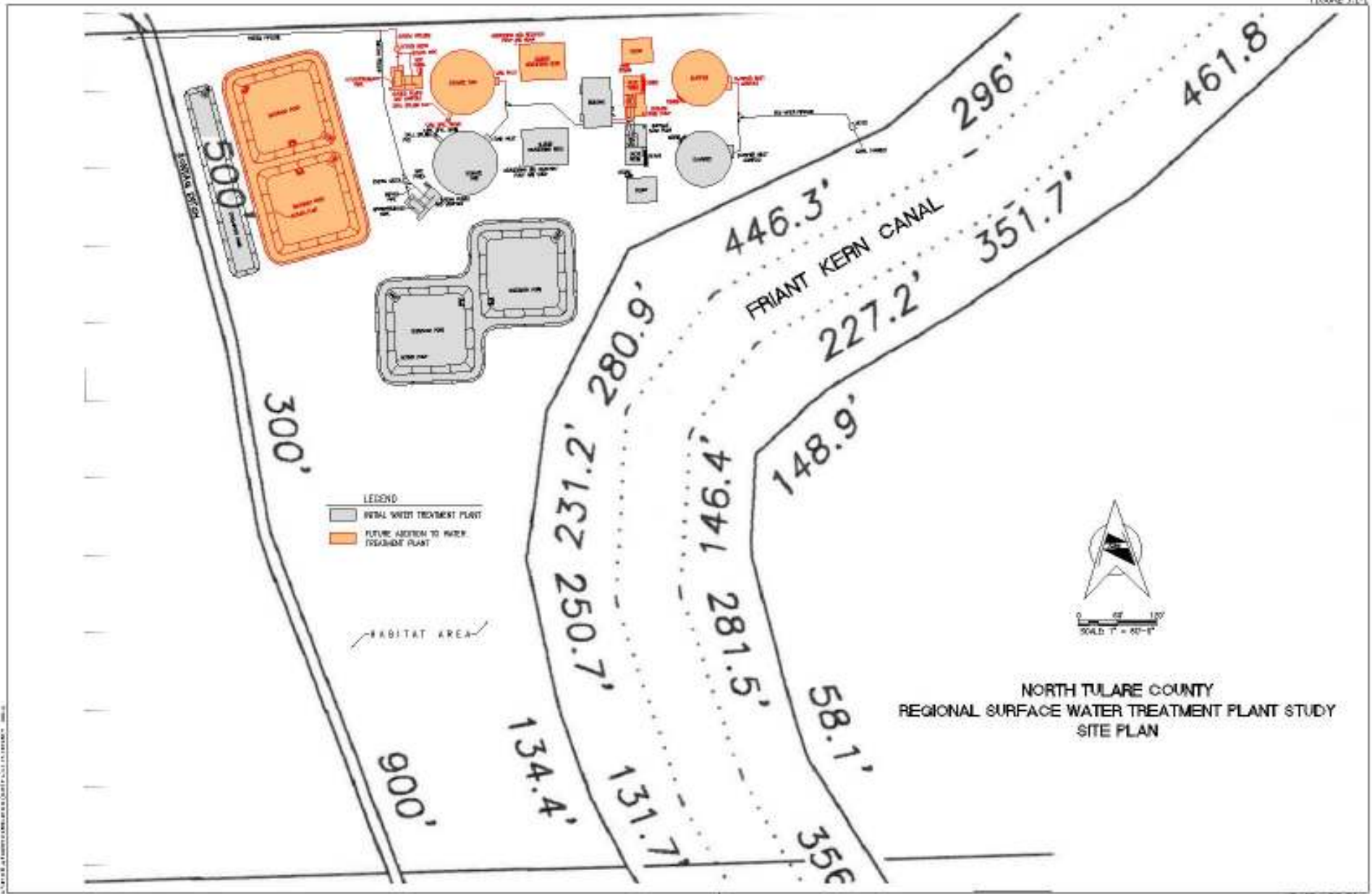
Meeting Goal: *To establish a clear understanding of existing surface water resources and potential governance structures.*

Welcome & Updates	Erika
Approval of meeting notes from: August, September and October	Sarah
Public Input	Olga
Leadership	
<ul style="list-style-type: none"> • Region/Project Name <ul style="list-style-type: none"> ○ Project Fact Sheet 	Olga
<ul style="list-style-type: none"> • Governance Structures Available – Pros and Cons 	Blanca & Olga
<ul style="list-style-type: none"> ○ Presentation on the Solano County Water Agency 	David Okita, CWC
Drinking Water & Infrastructure – Existing and Planned	
<ul style="list-style-type: none"> • Presentation on the Planning Study and questions presented by the Working Group 	Jim Wegley, Keller & Wegley
<ul style="list-style-type: none"> • Presentation on questions asked by the Working Group of Alta Irrigation District 	Chris Kapheim, Alta Irrigation District
<ul style="list-style-type: none"> • Facilitated Question & Answer Session 	Blanca and Olga
Assignment & Working Groups	
<ul style="list-style-type: none"> • Communication follow up discussion 	Sarah
<ul style="list-style-type: none"> • Financial information status 	Erika
Next session:	Sarah
Assignments and Action Items:	Blanca
Adjourn:	Olga
Thank you!	

FIGURE 4.3-1A



10000 West/West - 5,000 East - 2000 West - 2000 West - 2000 West - 2000 West



North Tulare County Regional Surface Water Treatment Plant

Working Group Meeting

November 14, 2015

1. **Please explain the changes in the Appended Study compared to the Final Study. Please explain increases in costs.**

The Orosi Public Utility District had initially requested only a partial water supply from the proposed surface water treatment plant. The District's remaining water demands were to be provided from pumping of their existing groundwater wells. After further review, the District decided to request a full water supply from the surface water treatment plant. Sultana Community Services District determined that there were more water service connections than initially reported and in the Addendum the additional connections were included. The anticipated water connections in the Monson Area were also greater than shown in the Report, and were, therefore, increased. These changes for the three communities resulted in an increase in the water supply required to serve the treatment plant with an associated increase in the estimated operational costs. This increase in the water supply for the water treatment plant was discussed with the Alta Irrigation District and they felt comfortable in supplying the additional amount of water. The size of the water treatment plant and specific portions of the conveyance facilities were reevaluated and increased accordingly. The estimated increases in the total costs were determined and are discussed further in the Addendum to the Report.

2. **There are several local water infrastructure improvements that are underway or planned (i.e. wells and connections). How will they be integrated into the surface water project?**

It is our understanding that there are additional infrastructure projects planned in the area. At the time of the Report, these projects were in the planning stages and had not been completed. When these facilities are constructed and become operational, there may be an opportunity to integrate them into the overall water plan for serving the area. It is our understanding that some of the projects currently being studied may reduce the conveyance facility costs shown in the Report.

3. How will the surface water treatment plant and pipelines accommodate both short term and long term growth?

The funding agencies will typically allow an additional ten percent growth factor in the design of the improvements. Any increase in the size of the proposed surface water treatment plant and appurtenances beyond that allowance will require additional funding. Additional funding sources will need to be pursued and could possibly be provided by the connection fees that will be generated and/or supported by the additional water services that will be connected to the system.

4. How will local groundwater wells be integrated into the surface water system to provide water when the Friant-Kern Canal is down for maintenance? Could they be more frequently incorporated into the overall system (dual source system)? What about including ongoing maintenance of the community wells in the system – rotating basis?

During those periods when maintenance is occurring on the Friant-Kern Canal, the existing groundwater wells identified in the Report can be used to provide the wintertime flows. With the development of infrastructure improvements listed in the Report, the communities will all be connected by the proposed conveyance facilities. It could be possible for a dual (surface water/groundwater) system to be incorporated in the operations plans for the water system. Such a plan will require agreements between the various communities regarding the operations of the individual groundwater wells. The ongoing maintenance on the wells will be defined in this agreement. One option is for the individual districts that are providing the water from their groundwater wells, during the canal maintenance period to meet this wintertime demand, be compensated by those agencies receiving the water on a unit cost for the water basis. The individual agencies should be responsible for the operation and maintenance of their own wells.

5. What happens if back up wells go out of compliance? Is there a way to treat them? Is there an alternative?

As discussed in the Addendum to the Report, all of the communities will be receiving a full water supply from the surface water treatment plant. The only time that the groundwater wells are planned to be used is during the periodic canal maintenance period when the canal is dry. Temporary treatment of the water pumped from the groundwater wells could be achieved if all the wells are out of compliance and the wintertime flows cannot be provided. Another option could be the development of temporary storage within the canal prism. Currently, the Alta Irrigation District and the

City of Orange Cove are discussing an option which includes an evaluation of an alternate conveyance facility for delivering Kings River Water to the area in-lieu of or as a supplement to the Friant-Kern Canal.

- 6. How good is the current project price for the future? Construction and a final product may not come into fruition for 5-7 years – what sort of inflation is factored in?**

The cost estimates in the Report are based on current costs. Depending on the time frame for construction of the facilities an appropriate inflation factor will need to be applied.

- 7. What design measures are being included to prevent disinfection byproducts?**

Kings River Water is of excellent quality compared to other surface water supplies in the State. The formation of disinfection byproducts was one of the items considered in the siting of the surface water treatment plant. To reduce the formation of disinfection byproducts, it is recommended that the treatment plant be located adjacent to the Friant-Kern Canal. The water storage tank should also be designed to allow the addition of aeration equipment.

- 8. Capacity of seven wells is sufficient. Is the pressure and location sufficient to push the water all around to all of the seven communities without needing to install booster pumps (there will be some slight uphill slope).**

The land topography for the seven communities that are proposed to be served by the surface water treatment plant is relatively flat. In the investigation completed for purposes of the Report, it was determined that water from the wells can be distributed to the remaining communities. It is not expected that additional booster pumps would be required. Utilizing the surveys to be conducted during the design phase of the project, a detailed evaluation will be completed on the operation of the system when using the groundwater wells.

- 9. Has solar been considered for operations and maintenance to keep down costs?**

Solar power facilities were not included in the budgets. Based on the cost of the solar facilities and the funding opportunities available, solar power can be considered during the final design. For wastewater treatment facilities, solar power facilities are an eligible item for funding, but, apparently, solar power is not a fundable item through the drinking water program.

- 10. What options are there to purchase or put an option on the site for the treatment plant? What other options for a site to build the plant have been analyzed – are there any?**

A field review of the entire region was made to locate a suitable site for the water treatment plant. The water treatment plant site selected was the best location for construction of the facility. The selected site meets all the criteria as far as being centrally located to the communities, current land use on the property, being located in a concrete-lined reach of the Friant-Kern Canal and adjacent to the canal, the proposed site is adjacent to an existing Alta Irrigation District Canal, the size of the parcel is sufficient to provide an area that can be dedicated for habitat enhancement and is also of sufficient size to allow expansion of the treatment facility to serve an expanded service area that includes domestic water users in addition to the seven communities identified in the Report. It is recommended that an option on this parcel be pursued until funding is available to purchase the property.

- 11. What happens to the surface water treatment plant when the canal is empty? Can you leave it dry for three months?**

During the canal maintenance period, when groundwater wells are being used to supply water to the seven communities, the water treatment plant can be taken off-line. This will provide an opportune time to accomplish the required and preventative maintenance on the water treatment plant and associated equipment.

- 12. Review for us the information on meters and two-way meters.**

Each community will have a master meter to record the total water deliveries being made to them from the water treatment plant. Communities that also furnish water from their wells during the period when the Friant-Kern Canal is shut down will have metering facilities that can also record the quantity of water delivered from their individual water system to the project for use by others.

TABLE 4.3-1
ALIGNMENT A
RAW WATER AND SYSTEM PIPELINE CAPACITY
 PHD = 4515 GPM (SYSTEM) (5432)
 PHD = 3680 GPM (RAW WATER) (4450)
NORTH TULARE COUNTY
REGIONAL SURFACE WATER TREATMENT PLANT STUDY

AGENCY	SYSTEM FLOW RATE (gpm)	CAPACITY PRORATED ON FLOW	
CUTLER PUBLIC UTILITY DISTRICT	2100	46.51%	(38.66%)
OROSI PUBLIC UTILITY DISTRICT	1560 (2273)	34.55%	(41.84%)
SULTANA COMMUNITY SERVICES DISTRICT	341 (509)	7.55%	(9.37%)
EAST OROSI COMMUNITY SERVICES DISTRICT	243	5.38%	(4.47%)
SEVILLE (Zone of Benefit No. 1)	127	2.81%	(2.34%)
YETTEM (Zone of Benefit No. 1)	110	2.44%	(2.03%)
MONSON AREA	34 (70)	0.75%	(1.29%)

TABLE 2.3-2
AGENCY SERVICE CONNECTIONS/FLOW BASED
WATER TREATMENT PLANT CAPACITY
DESIGN = 3682 GPM (4450)
NORTH TULARE COUNTY
REGIONAL SURFACE WATER TREATMENT PLANT STUDY

AGENCY	SERVICE CONNECTIONS	CAPACITY PRORATED ON CONNECTIONS	CAPACITY PRORATED ON FLOW
CUTLER PUBLIC UTILITY DISTRICT	1218	31.55% (30.86%)	46.51% (38.74%)
OROSI PUBLIC UTILITY DISTRICT	2196	56.89% (55.64%)	34.55% (41.80%)
SULTANA COMMUNITY SERVICES DISTRICT	180 (246)	4.66% (6.23%)	7.55% (9.37%)
EAST OROSI COMMUNITY SERVICES DISTRICT	106	2.75% (2.69%)	5.38% (4.45%)
SEVILLE (Zone of Benefit No. 1)	75	1.94% (1.90%)	2.81% (2.37%)
YETTEM (Zone of Benefit No. 1)	65	1.68% (1.64%)	2.44% (2.02%)
MONSON AREA	20 (41)	0.52% (1.04%)	0.75% (1.30%)

NORTH TULARE COUNTY REGIONAL
SURFACE WATER TREATMENT PLANT
SUPPLEMENTAL ITEMS
SCHEDULE

ITEM No.	TASK	MONTHS																				
		DURING GOVERNANCE STUDY						GOVERNANCE COMPLETED														
				1	2	3	4	5	6			1	2	3								
1.	WATER SUPPLY CONTRACTS																					
2.	WARREN ACT CONTRACT																					
3.	USE AGREEMENT FKC/KRWA AND TURNOUT PERMIT																					
4.	EXCHANGE AGREEMENT																					
5.	OPTION ON WATER TREATMENT PLANT SITE AND EASEMENTS																					
6.	CEQA (N.D.)																					
7.	SOILS REPORT																					
8.	INDIVIDUAL DISTRICT AGREEMENTS ON USE OF WATER WELLS																					
9.	GOVERNANCE STUDY																					
10.	ADMINISTRATION																					

TABLE 4.3-23A
SUMMARY INDIVIDUAL AGENCY
PIPELINE TOTAL PROBABLE CONSTRUCTION COST ESTIMATE
NORTH TULARE COUNTY
REGIONAL SURFACE WATER TREATMENT PLANT STUDY

AGENCY ALIGNMENT (COST TABLE)	TOTAL AMOUNT	CUTLER PUBLIC UTILITY DISTRICT		OROSI PUBLIC UTILITY DISTRICT		SULTANA COMMUNITY SERVICES DISTRICT		EAST OROSI COMMUNITY SERVICES DISTRICT		SEVILLE (ZONE OF BENEFIT NO. 1)		YETTEM (ZONE OF BENEFIT NO. 1)		MONSON AREA		TABLE TOTAL
		%	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	
ALIGNMENT A (4-3.12)	\$496,800	38.66	\$192,063	41.84	\$207,861	9.37	\$46,550	4.47	\$22,207	2.34	\$11,625	2.03	\$10,085	1.29	\$6,409	\$496,800
ALIGNMENT B (4-3.13)	\$3,545,450	40.42	\$1,433,071	43.75	\$1,551,134	9.80	\$347,454	4.68	\$165,927	-	-	-	-	1.35	\$47,864	\$3,545,450
ALIGNMENT C (4-3.14)	\$161,115	-	-	100.00	\$161,115	-	-	-	-	-	-	-	-	-	-	\$161,115
ALIGNMENT D (4-3.15)	\$203,550	-	-	-	-	-	-	100.00	\$203,550	-	-	-	-	-	-	\$203,550
ALIGNMENT E (4-3.16)	\$882,970	42.41	\$374,468	45.90	\$405,283	10.28	\$90,769	-	-	-	-	-	-	1.41	\$12,450	\$882,970
ALIGNMENT F (4-3.17)	\$1,141,950	-	-	-	-	87.91	\$1,003,888	-	-	-	-	-	-	12.09	\$138,062	\$1,141,950
ALIGNMENT G (4-3.18)	\$610,880	-	-	-	-	-	-	-	-	53.59	\$327,371	46.41	\$283,509	-	-	\$610,880
ALIGNMENT H (4-3.19)	\$734,620	-	-	90.34	\$663,656	-	-	9.66	\$70,964	-	-	-	-	-	-	\$734,620
ALIGNMENT I (4-3.20)	\$244,030	-	-	79.70	\$194,492	17.85	\$43,559	-	-	-	-	-	-	2.45	\$5,979	\$244,030
ALIGNMENT J (4-3.21)	\$906,977	-	-	-	-	100.00	\$906,977	-	-	-	-	-	-	-	-	\$906,977
ALIGNMENT K (4-3.22)	\$623,875	-	-	-	-	-	-	-	-	-	-	-	-	100.00	\$623,875	\$623,875
AGENCY CONSTRUCTION TOTAL	\$9,552,217	20.93	\$1,999,602	33.33	\$3,183,541	25.54	\$2,439,197	4.84	\$462,648	3.55	\$338,996	3.07	\$293,594	8.74	\$834,639	\$9,552,217

TABLE 4.3-24
SUMMARY INDIVIDUAL AGENCY
PIPELINE TOTAL PROBABLE COST ESTIMATE
NORTH TULARE COUNTY
REGIONAL SURFACE WATER TREATMENT PLANT STUDY

AGENCY \ COST ITEMS	TOTAL PIPELINE CONSTRUCTION COST	DESIGN & CONSTRUCTION ADMINISTRATION/ INSPECTION	LEGAL & PROJECT ADMINISTRATION	SURVEYING & TESTING	METERING	TOTAL COST
CUTLER PUBLIC UTILITY DISTRICT	\$1,900,013	\$337,650	\$22,510	\$33,800	\$45,000	\$2,338,973 (\$2,464,602)
OROSI PUBLIC UTILITY DISTRICT	\$2,382,653	\$423,450	\$28,230	\$42,400	\$45,000	\$2,921,733 (\$3,897,041)
SULTANA COMMUNITY SERVICES DISTRICT	\$2,291,610	\$407,250	\$27,150	\$40,700	\$31,600	\$2,798,310 (\$2,982,997)
EAST OROSI COMMUNITY SERVICES DISTRICT	\$469,395	\$83,400	\$5,560	\$8,400	\$31,600	\$598,355 (\$591,448)
SEVILLE (Zone of Benefit No. 1)	\$338,843	\$60,150	\$4,010	\$6,000	\$31,600	\$440,603 (\$441,796)
YETTEM (Zone of Benefit No. 1)	\$293,470	\$52,200	\$3,480	\$5,200	\$31,600	\$385,950 (\$386,794)
MONSON AREA	\$762,205	\$135,450	\$9,030	\$13,600	\$31,600	\$951,885 (\$1,041,439)
PROJECT TOTAL	\$8,438,189	\$1,499,550	\$99,970	\$150,100	\$248,000	\$10,435,809 (\$11,806,117)

TABLE 4.2-2
SUMMARY INDIVIDUAL AGENCY
SURFACE WATER TREATMENT PLANT
TOTAL PROBABLE COST ESTIMATE
NORTH TULARE COUNTY
REGIONAL SURFACE WATER TREATMENT PLANT STUDY

AGENCY \ COST ITEMS	AGENCY %	TOTAL CONSTRUCTION COST	ENGINEERING & CONSTRUCTION ADMINISTRATION	LEGAL & PROJECT ADMINISTRATION	SURVEYING & TESTING	PIPELINE R/W, PROPERTY PURCHASE & ACQUISITION	POWER LINE EXTENSION	TOTAL COST
CUTLER PUBLIC UTILITY DISTRICT	46.51	\$5,141,657	\$837,180	\$27,906	\$55,812	\$50,000	\$7,000	\$6,119,555 (\$5,889,300)
OROSI PUBLIC UTILITY DISTRICT	34.55	\$3,819,485	\$621,900	\$20,730	\$41,460	\$50,000	\$7,000	\$4,560,575 (\$6,369,000)
SULTANA COMMUNITY SERVICES DISTRICT	7.55	\$834,649	\$135,900	\$4,530	\$9,060	\$50,000	\$7,000	\$1,041,139 (\$1,470,500)
EAST OROSI COMMUNITY SERVICES DISTRICT	5.38	\$594,756	\$96,840	\$3,228	\$6,456	\$50,000	\$7,000	\$758,280 (\$731,400)
SEVILLE (Zone of Benefit No. 1)	2.81	\$310,644	\$50,580	\$1,686	\$3,372	\$50,000	\$7,000	\$423,282 (\$410,000)
YETTEM (Zone of Benefit No. 1)	2.44	\$269,741	\$43,920	\$1,464	\$2,928	\$50,000	\$7,000	\$375,053 (\$363,200)
MONSON AREA	0.75	\$82,912	\$13,500	\$450	\$900	\$50,000	\$7,000	\$154,762 (\$251,700)
PROJECT TOTAL	99.99	\$11,053,844	\$1,799,820	\$59,994	\$119,988	\$350,000	\$49,000	\$13,432,646 (\$15,485,100)

NORTH TULARE COUNTY
REGIONAL SURFACE WATER TREATMENT PLANT STUDY

SECTION SIX

TABLE 6.2-1A SUMMARY OF INDIVIDUAL AGENCY TOTAL MONTHLY SERVICE FEE^{<1} FOR VARIOUS OPTIONS NORTH TULARE COUNTY REGIONAL SURFACE WATER TREATMENT PLANT STUDY

OPTIONS	COLUMN A ^{<2}	COLUMN B
AGENCY	Includes water treatment plant operation & maintenance; funded depreciation on conveyance facilities and proportional split ^{<3} on loan/grant ^{<4} between water treatment plant and conveyance facilities	Column A with total loan ^{<4} amount for water treatment plant portion only
Cutler Public Utility District	\$38.22 (\$37.04)	\$39.59 (\$38.02)
Orosi Public Utility District	\$25.85 (\$21.13)	\$26.16 (\$21.27)
Sultana Community Services District	\$59.95 (\$59.69)	\$53.77 (\$54.22)
East Orosi Community Services District	\$58.65 (\$56.92)	\$58.38 (\$56.88)
Seville (Zone of Benefit no. 1)	\$46.01 (\$42.66)	\$44.61 (\$41.92)
Yetttem (Zone of Benefit no. 1)	\$46.29 (\$44.06)	\$45.25 (\$43.33)
Monson Area	\$75.92 (\$93.60)	\$59.25 (\$73.00)

Notes:

- <1 Based on number of service connections, shown in TABLE 2.3-1A.
- <2 TABLE 5.1-4A, TABLE 5.2-2A, TABLE 6.1-1A, TABLE 6.1-2A.
- <3 Surface water treatment plant 56.74% and conveyance facilities 43.26%.
- <4 Loan repayment on \$7,291,217 @ 0% interest for 30 years.

(February Final Report)